

INTEGRATED DATABASE AND APPLICATIONS FOR POLICYMAKERS

The Integrated Database and Applications for Policymakers (IDAPS) is a technological initiative to intended to provide valuable insight and quantitative evidence to policy makers, planners and doers, at international, national and local levels to support investment interventions for early action and adaptation. It also provides a rich source of data for researchers exploring the impacts of climate change in rural communities, and potentially beyond. IDAPS is jointly led by the Walker Institute and Evidence for Development, our embedded NGO partner.



IDAPS

Despite significant investments in early warning systems, only limited progress has been made towards making communities safe (UN SDG Report, 2017). IDAPS is a technological initiative to provide long-term quantitative evidence for targeted investment in infrastructure and livelihoods that enable for early action and effective adaptation before the point of crisis has been reached. Scaling-up such targeted investments across countries is a grand challenge due to the complexity of environmental, climatic and socioeconomic factors affecting climate risk, the multi-sectoral (health, environment, water, transport) impacts and the range of factors affecting interventions at community level. Understanding the specific vulnerabilities of communities at different seasons, and their exposure to different types of climate risk is key to improving physical and livelihood risk assessment, preparedness, communication and response.

The Integrated Database and Applications for Policy-makers (IDAPS), arose from a review of data sources from Meteorology, Hydrology and Agronomics. And also of Livelihoods data, which indicates at community level how people live: what they grow, what they eat what they buy, what they sell. The dependencies between these different data sources make it clear that if we can connect the “hard sciences” data with the livelihoods data, we can better understand the impact of climate change on the real lives of people.

The core of IDAPS data is the Livelihoods data that is the point where resilience of communities, in the face of climate change, can be measured. Livelihoods data in IDAPS is based on The Household Economy Approach (HEA)¹. Around that core data IDAPS integrates data from other sources to provide policy makers and others with actionable insight into how climate change might be expected to affect vulnerable populations in their purview.

IDAPS brings together a dedicated interdisciplinary multi-institutional team of internationally recognized:

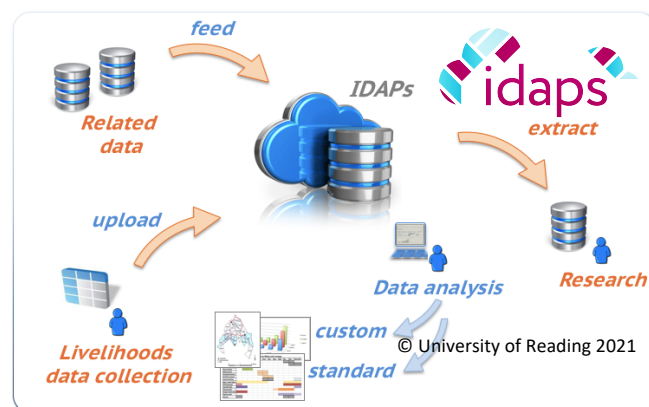
- natural scientists
 - social scientists
 - and knowledge exchange experts,
- with an established track record of productive collaboration in Sub-Saharan Africa for research and development towards climate resilient livelihoods and infrastructure. It is jointly led by the Walker Institute and our embedded partners, Evidence for Development.

HOW DOES IDAPS WORK?

IDAPS is a cloud-based database.

¹ Seaman, J. et al. (2014). Climate Risk Management, 4-5 (2014) 59-68. doi:10.1016/j.crm.2014.10.001

- It can take data feeds from other databases and data sources.
- It can provide extracts to other databases.
- It provides an application for the collection of livelihoods data.
- It has pre-built analytics and analytic tooling for custom analysis



Who are the target users?

Mitigating the effect of climate change on rural economies involves policy makers, disaster response planners and many others. When can see the connection between “hard science” observational data and models and the effect on people living their lives, then they can make effective decisions.

- One example might be a flash flood in an area that grows flood-sensitive crops is much more devastating than in an area with different, more resilient crops or at a stage of the crop lifecycle when it is not so vulnerable. Disaster planners can priorities and raise the urgency of their work in the light of such insight.
- Another example might be the suggestion that a critical heat-sensitive crop is being grown in an area which is likely to become significantly hotter in five to ten years. National planners can prioritise investment and policies to enable and encourage substitute crops.

IDAPs is intended to provide valuable insight to such policy makers, planners and doers, at international, national and local levels.

ACKNOWLEDGEMENTS

The authors are grateful to our partners, Evidence for Development and all contributors who continue to invest their time in the development of IDAPS.

To cite this report

Cornforth, R. J., Clegg, D., Petty, E. C. (2021) ‘The Integrated Database and Applications for Policymakers’, Technical Briefing Note WITBN1218/01, Walker Institute, University of Reading, June 2021. Doi: 10.5281/zenodo.5025211

To contact the authors

r.j.cornforth@reading.ac.uk

www.walker.ac.uk

Walker Institute Briefing Note series

Walker Institute Briefing Notes are intended to present our research results to as wide an audience as possible. Briefing notes may contain preliminary research; provide a review of recent literature or highlight results of relevance to policy and/or business. Readers are encouraged to provide feedback to the author(s) (contact details above) or to the Walker Institute Knowledge Management team (FAO info@walker.ac.uk). The views presented in this paper are those of the author(s) and do not necessarily represent the views of the Walker Institute or our partners.

This publication is copyright but the text may be used free of charge for the purposes of advocacy, campaigning, education, and research, provided that the source is acknowledged in full and copies are not being sold commercially. The copyright holder requests that all such uses be registered with them for impact assessment purposes. For online use, we ask readers to link to the original resource on the Walker Institute website. For copying in any other circumstances, or for re-use in other

publications, or for translation or adaptation, permission must be secured. Email: info@walker.ac.uk. The information in this publication is correct at the time of going to press.

This work is licensed under the Creative Commons Attribution-NonCommercial-NonDerivative 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc/4.0/> or send a letter to Creative Commons, PO Box 1866, Mountain View, CA 94042, USA.

© University of Reading, 2021

Walker Institute, University of Reading, Earley Gate, Reading RG6 6AR UK